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EXAMINER	
TANG, KUO LIANG J	
ART UNIT	**PAPER NUMBER**
2122	8

DATE MAILED: 03/11/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/657,761	KATHAIL ET AL.	
	Examiner	Art Unit	
	Kuo-Liang J Tang	2122	

-- The MAILING DATE of this communication appears on th cover she t with th correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12/19/2003*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-16* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-16* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. This Office Action is in response to the amendment filed on 12/19/2003.

Claims 1, 5-6, 9-10, 13-14 remain rejected under 35 U.S.C. 102(b).

Claims 2, 7, 11 and 15 remain rejected under 35 U.S.C. 103(a).

Claims 3, 8, 12 and 16 remain rejected under 35 U.S.C. 103(a).

Claim 4 remains rejected under 35 U.S.C. 103(a).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 5-6, 9-10, 13-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Simons et al. US Patent No. 5,805,890 (hereinafter Simons).

As Per Claim 1, Simons discloses a debugger for use in connection with a parallel computer including a plurality of processing nodes. The debugger enables the operator to establish a processing node set in response to certain criteria, such as the respective identifications of the processing node and their prior processing under the debugger. (See Abstract & FIG. 1 and associated text). In that Simons discloses the system that covering the steps of:

"In a data processing system having a memory (E.g. see FIG. 1, MEM 15(i)), an operating system executing within said data processing system comprising: a debug support module configured to associate a debug flag (E.g. see FIG. 2, item 22(i) and item 23(i)) with debug commands issued within the data processing system" (E.g. see col. 1:44-57 and FIG. 3); and

"a kernel module coupled for communication with said debug support module, said kernel module comprising: a process creation unit configured to spawn special processes with a debug flag set (E.g. see FIG. 2, item 22(i) and item 23(i)) for said issued debug commands associated with a debug flag; (E.g. see FIG. 2, blk 11) and a messaging transfer unit configured to transfer messages from a source process to a destination process, said message transfer unit further configured to set a debug flag for said destination process responsive to said source process includes said debug flag set." (E.g. see FIG.3 and col. 5:23-53).

As Per Claim 5, Simons discloses:

"receiving a message for transfer from the source process to the destination process;" (E.g. see FIG. 2, blk 21);

"determining if said source process is associated with a debug flag;" (E.g. see FIG. 2, item 22(i));

"associating a debug flag with said destination process responsive to said source process is associated with a debug flag" (E.g. see FIG. 2, 23(i)); and

"communicating the message to the destination process." (E.g. see FIG.3 and col. 5:23-53).

As Per Claim 6, the rejection of claim 5 is incorporated and further Simons teaches:

"determining if a debug command is issued within the data processing system (E.g. see col. 5:31-35); spawning a new process associated with said debug command (E.g. see FIG. 4): and associating a debug flag (E.g. see FIG. 2, item 22(i) and item 23(i)) with said new process to identify said new process as a debug process.(E.g. see FIG. 3 and col. 5:23-53).

As Per Claim 9, is the storage device readable claim corresponding to the method claim 5 and is rejected under the same reason set forth in connection of the rejection of claim 5. Further Simons discloses a computer readable medium. (E.g. see col. 10:61-64).

As Per Claim 10, the rejection of claim 9 is incorporated and is rejected under the same reason set forth in connection of the rejection of claim 6.

As Per Claim 13, is the system claim corresponding to the method claim 5 and is rejected under the same reason set forth in connection of the rejection of claim 5.

As per Claim 14, the rejection of claim 13 is incorporated and is rejected under the same reason set forth in connection of the rejection of claim 6.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 2, 7, 11 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Simons in view of Valizadeh US Patent No. 5,838,994.

As Per Claim 2, the rejection of claim 1 is incorporated and further Simons teaches memory (E.g. see FIG. 1, MEM 15(i)). Simons does not explicitly disclose memory pool. However, Valizadeh teaches a "memory management unit configured to allocate the memory into a main memory pool and a reserve memory pool" (E.g. see col. 3:1-5) said memory management unit further configured to allocate memory from said reserve memory pool only to said special processes having said debug flag set." (E.g. see col. 2:64-67). Therefore, it would have been obvious to incorporate the teaching of Valizadeh into the teaching of Simons to have different memory pools. The modification would have been obvious because one of ordinary skill in the art would have been motivated to better utilize available memory.

As Per Claim 7, the rejection of claim 5 is incorporated and further Simons teaches memory (E.g. see FIG. 1, MEM 15(i)). Simons didn't explicitly disclose memory pool. However, Valizadeh teaches a "memory management unit configured to allocate the memory into a main memory pool and a reserve memory pool" (E.g. see col. 3:1-5). Therefore, it would

have been obvious to incorporate the teaching of Valizadeh into the teaching of Simons to have different memory pools. The modification would have been obvious because one of ordinary skill in the art would have been motivated to better utilize available memory.

As Per Claim 11, the rejection of claim 9 is incorporated and is rejected under the same reason set forth in connection of the rejection of claim 7.

As Per Claim 15, the rejection of claim 13 is incorporated and is rejected under the same reason set forth in connection of the rejection of claim 7.

4. Claims 3, 8, 12 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Simons in view of Valizadeh further in view of Poublan et al., US Patent No. 4,104,718 (hereinafter Poublan).

As Per Claim 3, the rejection of claim 2 is incorporated and further Simons and Valizadeh teaches memory pool. Simons and Valizadeh do not explicitly disclose allocated memory to said special processes from said reserve memory pool when said main memory pool is depleted. However, Poublan teaches "allocated memory to said special processes from said reserve memory pool responsive to said main memory pool is depleted and said debug flag of said special process is set." (E.g. see col. 39:30-44). Therefore, it would have been obvious to incorporate the teaching of Simons and Valizadeh into the teaching of Poublan to allocated memory to said special processes from said reserve memory pool when said main memory pool

is depleted. The modification would have been obvious because one of ordinary skill in the art would have been motivated to make memory usage more efficient.

As Per Claim 8, the rejection of claim 7 is incorporated and further Simons and Valizadeh disclose memory pool and process with a debug flag. Simons and Valizadeh do not explicitly disclose allocated memory to said special processes from said reserve memory pool when said main memory pool is depleted. However, Poublan teaches "allocated memory to said special processes from said reserve memory pool when said main memory pool is depleted." (E.g. see col. 39:30-44). Therefore, it would have been obvious to incorporate the teaching of Simons and Valizadeh into the teaching of Poublan to allocated memory to said special processes from said reserve memory pool when said main memory pool is depleted. The modification would have been obvious because one of ordinary skill in the art would have been motivated to make memory usage more efficient.

As Per Claim 12, the rejection of claim 11 is incorporated and is rejected under the same reason set forth in connection of the rejection of claim 8.

As Per Claim 16, the rejection of claim 15 is incorporated and is rejected under the same reason set forth in connection of the rejection of claim 8.

5. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Simons in view of Holland, US Patent No. 6,243,860.

As Per Claim 4, the rejection of claim 1 is incorporated and further Simons teaches process with debug flag. Simons does not explicitly disclose regular processes lacking a debug flag indicator. However, Holland teaches "spawn regular processes for commands issued which lack a debug flag, said regular processes lacking a debug flag indicator" (E.g. see col. 6:15-18). This is just a regular process spawned without any flag associated with it. Therefore, it would have been obvious to incorporate the teaching of Holland into the teaching of Simons to have a regular processes lacking a debug flag indicator. The modification would have been obvious because one of ordinary skill in the art would have been motivated to increase flexibility for the kernel to create process.

Conclusion

6. Applicant's amendment with respect to claims rejection have been considered but are moot in view of the new grounds of rejection.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Correspondence Information

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kuo-Liang J Tang whose telephone number is 703-305-4866. The examiner can normally be reached on M-F 8:30 to 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Q Dam can be reached on 703-305-4552.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9306.

Kuo-Liang J. Tang

Software Engineer Patent Examiner

TUAN DAM
SUPERVISORY PATENT EXAMINER